

WHAT IS CLAIMED IS:

1. An electro-optical device encased in a mounting case obtained by accommodating in the mounting case an electro-optical device having an image display region on which projection light from a light source is incident, the mounting case comprising:
  - a plate disposed so as to face one surface of the electro-optical device;
  - a cover disposed so as to cover the plate and the electro-optical device; and
  - cooling-air guiding portions each including at a portion of side surfaces of the electro-optical device as at least some of surfaces that constitute a cooling air passage.
2. The electro-optical device encased in the mounting case according to Claim 1, at least some of the surfaces other than the surface including at least some of the side surfaces of the electro-optical device among the surfaces that constitute the cooling air passage comprising at least a part of an inner surface of at least one of the cover and the plate.
3. The electro-optical device according to Claim 1,
  - each of the cooling-air guiding portions including a first hole formed in one surface of the cover as an inlet of the cooling-air, and a second hole formed in a surface that faces the one surface of the cover as an outlet of the cooling air.
4. The electro-optical device according to Claim 1, a plurality of the passages being provided, at least some of the surfaces that constitute one passage including at least some of the side surfaces of the electro-optical device; and at least some of the surfaces that constitute the other passages including at least some of the side surfaces opposite to the side surfaces of the electro-optical device.
5. The electro-optical device according to Claim 1, the cover comprising:
  - a cover main body having a window corresponding to the image display region; and
  - a cooling-air introducing portion connected to the cover main body or extended from the cover main body, the cooling-air introducing portion transmitting cooling air to the surface of the electro-optical device exposed through the window,
  - an inlet of the cooling-air guiding portion being formed in a portion of the cover main body where the cooling-air introducing portion is not provided.
6. The electro-optical device according to Claim 1, the cover including a surface-area increasing device.
7. The electro-optical device according to Claim 1, at least one of the cover and the plate contacts at least a part of the electro-optical device with each other.

8. An electro-optical device encased in a mounting case obtained by accommodating in the mounting case an electro-optical device having an image display region on which projection light from a light source is incident, the mounting case comprising:

- a plate disposed so as to face one surface of the electro-optical device;
- a cover disposed so as to cover the plate and the electro-optical device; and
- cooling-air introducing inlets formed in side surfaces of the cover, the side surfaces of the cover being positioned above the cooling air transmitted into the electro-optical device encased in the mounting case.

9. A mounting case for accommodating an electro-optical device having an image display region on which projection light from a light source is incident, the mounting case comprising:

- a plate disposed so as to face one surface of the electro-optical device;
- a cover disposed so as to cover the plate and the electro-optical device; and
- cooling-air guiding portions each including at least some of side surfaces of the electro-optical device as at least some of surfaces that constitutes a cooling air passage.

10. A projection display apparatus, comprising:

- the electro-optical device encased in the mounting case according to Claim 1;
- a light source;
- an optical system that guides projection light onto the electro-optical device;
- a projection optical system that projects the projection light emitted from the electro-optical device; and
- cooling-air transmitting device that transmits cooling air into the electro-optical device encased in the mounting case.